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AUTHOR	Stevens, Nancy, Ed.
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ABSTRACT

This report is the second in a four-part series of research reports covering teacher supply, demand, quality, and policy. It focuses on the diversity of the Texas teaching force in terms of race/ethnicity and gender, explaining that the Texas teaching force is far from matching the diversity of the student body. After discussing why ethnic diversity is important, the report focuses on student enrollment growth and examines curriculum policy and course enrollment trends. The report also examines teacher demographics, focusing on teaching assignments. Next, the report discusses diversity as it relates to students, teachers, and gender. It also looks at the pipeline of Texas teachers and discusses how to improve the status of minority students in education. Additional information is presented on trends in student and teacher ethnicity, indexes for measuring teacher diversity, and the correlation between diversity, socioeconomic status, and student performance. (Contains 24 references.) (SM)

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Policy Research

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Teacher Supply, Demand, and Quality Policy Research Project

Texas Teacher Diversity and Recruitment

This is the second of a four-part series of research reports covering teacher supply, demand, quality, and policy that will provide a cross-sectional analysis of the current teaching force. Teacher demand is the number of teachers school districts are able to fund and willing to employ at a given time. Current research expands traditional models of supply and demand with variables related to teacher quality, and policy issues that frame decision making. Student and course enrollment, teacher diversity, and minority recruitment are the focus of this report.

Student enrollment trends and course enrollment are examined in relation to recent state policy initiatives. Ethnic and gender distribution of teachers across districts and campuses are examined, with additional analysis of teachers by subject area. The diversity of teachers on Texas school campuses is alsc reviewed.

A historical examination of minority participation at a number of benchmarks that lead to a teaching certificate is also presented. Minority performance along these milestones in the pipeline of teacher supply partially explains the lack of teacher diversity. Current state efforts at teacher recruitment provide one solution to diversity in the teaching force.

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Texas Teacher Diversity and Recruitment

Teacher demand is the number of teachers school districts are able to fund and willing to employ at a given time. Traditional models of teacher supply and demand are based primarily on trends in student/teacher ratios and projections of student enrollment. Current research expands the traditional model with variables related to teacher quality such as qualifications and tested ability. This issue of *Policy Research Report* focuses on one facet of teacher quality — teacher diversity. Teacher diversity is discussed as a school quality characteristic; that is, a characteristic of groups of teachers rather than individual teachers. Student course enrollment is discussed as one element of teacher demand in relation to teacher diversity, and teacher recruitment is reviewed as a policy issue related to the diversity of teachers.

This report is the second in a series of reports on topics related to teacher supply and demand. This series is meant to provide a framework for discussion and present information that portrays certain characteristics of the Texas teaching force. Chart 1 outlines the components of the Teacher Supply, Demand, and Quality Policy Research Project.

This particular report explores diversity of the Texas teaching force in relation to race/ethnicity and gender. Many diversity issues would seem to apply equally to discussions of racial and ethnic diversity and gender diversity. Research in teacher diversity, however, seldom spans both facets.

Issues surrounding the racial and ethnic makeup of the teaching force are generally explored as part of the broader topic of multicultural education. Multicultural education focuses on the need for greater cultural responsiveness by schools to foster intercultural understanding, support improved performance by minority students, and prepare all students to function effectively in a diverse society.

Chart 1

Teacher Supply, Demand, and Quality Policy Research Project

Supply	Demand	Quality	Policy
Working Conditions Labor Conditions			Military Downsizing and Competing Occupations
	Enrollment and Student/Teacher Ratio	Demographic Matching of Teachers and Students	Recruitment
Teacher Migration, Retention, Retirement, and Attrition	Funding Capacity	Teacher Qualifications and Tested Ability	
Applicants for Teaching Positions	Unmet Needs	Teacher Attitudes and Perceptions	Teacher Professionalism Classroom Teaching Practices

***Teacher supply** is defined as the total number of eligible individuals available from all sources who are willing to supply their services to teaching under prevailing conditions. **Demand** is the number of teachers school districts are able to fund and willing to employ at a given time. **Quality** is defined broadly to cover individual teacher characteristics such as competency in subject matter and classroom performance, school characteristics, and policy characteristics related to professionalism. **Policy** emphasis at the state level, as well as school district policy and practice, together have an effect on teacher supply, demand, and quality.*

Increasing the number of minority teachers is advocated as one strategy to increase cultural responsiveness of schools.

Issues surrounding the gender diversity of the teaching force are generally explored as part of the broader topic of gender equity. Gender equity focuses on the need for greater equity in teacher behavior toward students in the classroom to foster higher achievement by female students, especially in mathematics and science. Increasing the number of female teachers in mathematics and science is both advocated as a strategy to increase equitable treatment of females in these disciplines and predicted as a contributor to higher achievement by females.

The need to increase the number of male teachers in schools is another facet of gender diversity. Men are underrepresented in the teaching force overall, and especially in certain disciplines and grade levels. When combined with the underrepresentation of ethnic and racial minorities in the teaching force, severe shortages result in some areas.

This report looks at the trends in course enrollment of Texas students over the past five years in relation to recent state policy initiatives and the distribution of teachers by subject. Ethnic and gender distribution of teachers across districts and campuses is also described. Diversity of teachers by subject is also presented. A pipeline shows minority participation and performance at a number of benchmarks that lead to a teaching certificate. Finally, state level efforts at teacher recruitment are described.

Why Ethnic Diversity Matters

In 1992-93, almost 52 percent of Texas students were minorities. Population projections indicate that ethnic and racial minorities, especially Hispanics, will make up the majority of the Texas population by 2015. By 2025, two of every three school children will be minorities. These population dynamics can already be seen in many schools. More than half of the students in 255 of the 1,048 Texas school districts are minorities; 489 districts are more than 30 percent minority.

Seventy-seven percent of the Texas teaching force is white. The same diversity found among students is not found among teachers. An objective of the State Board of Education is to have a teaching force that reflects the ethnic composition of the state. It is argued that the demographic makeup of the teaching force is a dimension of quality relevant to learning outcomes for minority students. This view is echoed throughout three studies that review the research relevant to teacher diversity: *Research and Multicultural Education: From the Margins to the Mainstream*, by Carl A. Grant; *The Politics of Hispanic Education: Un Paso Pa'lante y Dos Pa'tras* by Kenneth Meier and Joseph Stewart; and *Voices from the Inside: A Report on Schooling from Inside the Classroom* by the Institute for Education in Transformation. These studies concur that the diversity of the teaching force is relevant for a number of reasons.

First, diversity is considered important because students need role models of like characteristics in professional positions, and all students need exposure to professionals who reflect the diversity of the state. The absence of role models gives minority students the negative message that opportunities are unavailable to persons from their backgrounds. With Hispanic teachers as role models, for example, Hispanic students see that they can aspire to middle-class success yet retain an identity with other Hispanics. In this way, Hispanic teachers as role models have been found to contribute to academic achievement among lower socioeconomic status Hispanics.

Second, teachers may interact more successfully with students who have culturally similar backgrounds to their own. Studies of African American and Hispanic teachers have found that they do positively affect the academic achievement of African American and Hispanic students. Although the case study approach often used for research conducted in the classroom cannot be generalized to the broader population, consistent findings in unrelated studies suggest that Hispanic teachers are better able than white teachers to engage Hispanic students in learning. There are similar findings in studies of African American teachers and students.

The ability to relate to students can have direct academic consequences for the students. For example, studies have found that white teachers are more likely to assign Hispanic students to special education classes than they would similarly achieving white students. Texas data show a disproportionate number of African American students assigned to special education classes. Studies also show that Hispanic teachers are less likely to misdiagnose language difficulties as learning disabilities.

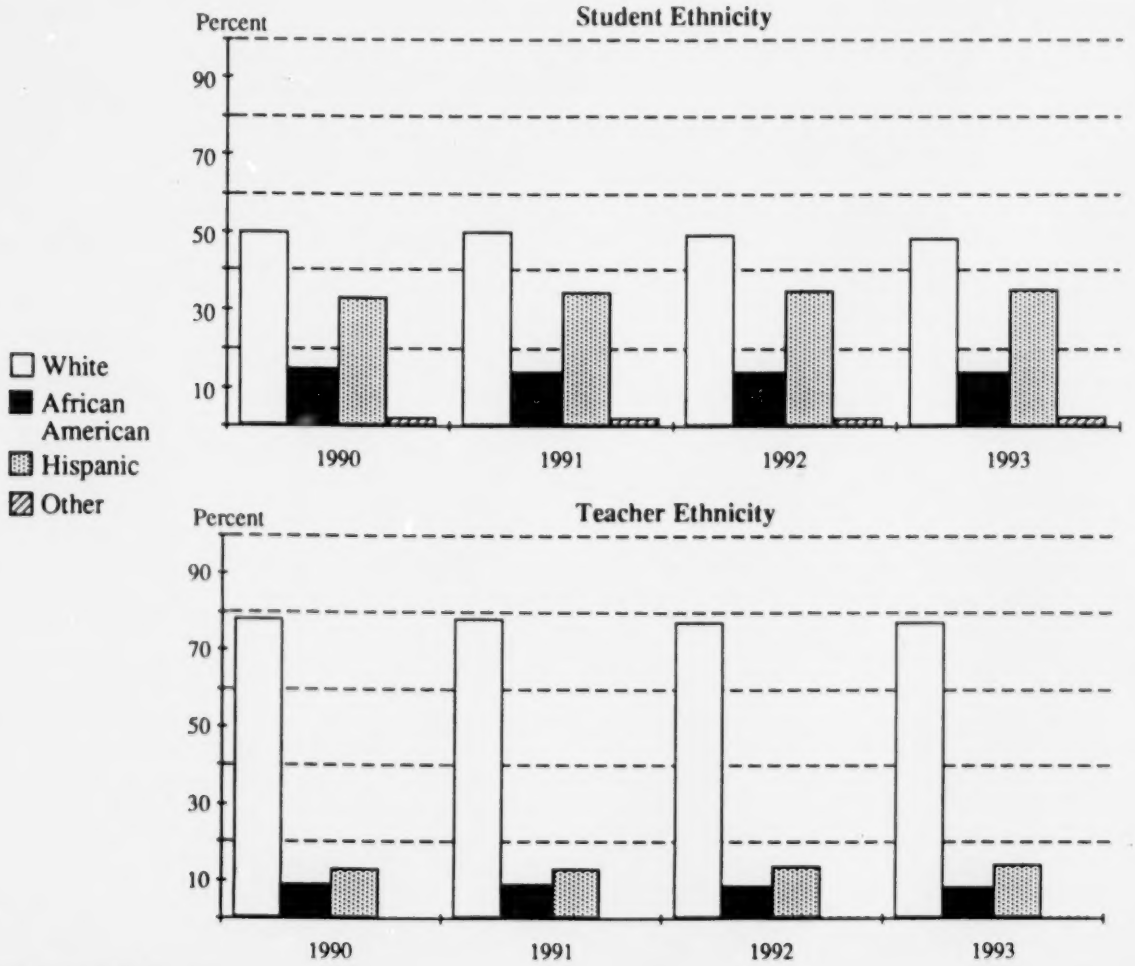
Third, diversity within a school's teaching force may increase knowledge and understanding of different cultural groups for all the teachers, thereby enhancing the ability of all teachers to interact successfully in diverse classrooms. Research on the teaching of minority students emphasizes that the teacher's ethnic background is not the determinant of culturally responsive teaching behavior. However, teachers also report they do not always understand students ethnically different from themselves.

Trends in Student and Teacher Ethnicity

There were 3.5 million students enrolled in Texas public schools in 1992-93. This represents an additional 75,000 students over the previous year and a 2.2 percent growth rate. Student growth has increased steadily since 1990 at rates nearing 2.5 percent. Hispanic students are the ethnic population that continues to drive statewide growth. Hispanic student growth was 3.7 percent over last year and 59 percent of the total student increase. African American students continue to increase, although at a lower rate than other minorities. The growth rate of African American students was 2.1 over the prior year. The highest growth rate over the prior year was found among all other minorities who grew at a rate of 8.1 percent. Growth among the white student population is considerably lower than all other ethnic groups. The growth rate for this population was below 1.0 percent.

Teachers make up 213,000 of the over 400,000 staff in Texas public schools, or 52 percent of total staff. Although students increased by 2.2 percent from 1991-92 to 1992-93, teacher full time equivalent (FTE) counts grew by 3.2 percent. A higher growth rate for teachers is to be expected since student growth does not occur uniformly across districts and grades, requiring districts to hire additional teachers for less than full classrooms. In addition, data show that students are taking more courses than they were five years ago.

Twenty-three percent of all teachers are minorities, which represents no change from the previous year. Hispanic teachers make up 14 percent of all teachers. African American teachers represent slightly over eight percent and are growing at the lowest rate (1.3 percent) of all ethnic groups. The fastest growing groups of teachers are the Hispanic and all other minorities, which have growth rates over 5 percent. Despite this, minorities, which constitute 52 percent of all students, are not equally represented among teachers in the state.



Teacher preparation programs often fail to adequately prepare teachers to respond appropriately to the diversity of student backgrounds they find in the classrooms. The frustration that results on the part of both teachers and students is exacerbated by teachers' fears of students who are ethnically or racially different from themselves. Minority teachers can serve as mentors to their colleagues in developing culturally responsive teaching strategies.

Consequently, although research has not shown a direct correlation between teacher diversity and student academic performance, there is considerable evidence in support of attaining an ethnically diverse teaching force. The current gap in academic performance between white and minority students and reports of racial tensions on school campuses lend an urgency to this goal.

STUDENT ENROLLMENT GROWTH

The Texas student body is 48 percent white, 35 percent Hispanic, 14 percent African American, and 2.4 percent native American and Asian/ Pacific Islander. Ethnic distribution of students varies greatly. Districts in urban areas serve a student population that is 79 percent minority; districts in rural areas serve a population that is only 28 percent minority.

Approximately 44 percent of Texas public school children are eligible to participate in the national free or reduced-price lunch program, one measure of student economic status. Higher concentrations of economically disadvantaged students are found in major urban districts and in districts with higher percentages of minority students. The lowest percentages of economically disadvantaged students can be found in suburban districts surrounding the major urban districts.

The 3.5 million students enrolled in Texas public schools in 1992-93 represent a 2.2 percent increase from the prior year. Although the overall growth rate was lower than in recent years, the number of districts reporting enrollment increases has grown. Districts in suburban areas around major urban and other central cities experienced higher growth rates, over three percent, while major urban and rural districts averaged smaller increases.

Statewide, growth in the minority student population continues to exceed white growth. Asian/Pacific Islander and native American students had the highest growth rate over the prior year. Hispanic students grew by a rate of 3.7 percent, and it is that population that continues to drive statewide growth. Of the 75,364 student increase in Texas' total enrollment, 59 percent or 44,437 were Hispanic. The number of African American students grew by 2.1 percent, representing an increase of 10,230 students.

In contrast, the white population grew by less than one percent, or by 14,331 students. This rate of increase is the smallest among the ethnic groups, and it represents a decreasing rate of growth. The overall percentage of white students in the total student population continues to drop; it has changed from 49.5 percent in 1990-91, to 49.0 percent in 1991-92, to 48 percent in 1992-93.

High growth experienced by elementary schools in past years is now reaching the state's middle schools. Enrollment in grades 6 through 8 increased by approximately 29,000 students, a gain of 3.7 percent over 1991-92. Early childhood enrollments continue to be high; early education, prekindergarten, and kindergarten grew by 3.6 percent. Growth in the middle grades and the early childhood grades was the predominant factor in the overall 2.2 percent increase in enrollment.

Growth in elementary grades 1 through 5 was the lowest of all grade spans, at 1.1 percent. In fact, fewer students were enrolled in first grade in 1992-93 than in 1991-92. High school enrollments were up 2.0 percent, the second consecutive year the total number of ninth through twelfth graders increased. High school growth is due primarily to larger student cohorts moving through the school system.

Other than prekindergarten and kindergarten, grades 1 and 9 have the largest percentages of students new to Texas public schools. These grades are the traditional entry points for students previously enrolled in private schools. In 1992-93, 14.9 percent of ninth grade students and 11.8 percent of eighth grade students were new to Texas public schools.

Each ethnic group displayed the same patterns of growth within grades as appear in the statewide patterns. Within each grade span, Hispanic students, native Americans, and Asians/Pacific Islanders have rates of growth that generally exceed the state average growth rate. African American growth exceeds the state average rate only in kindergarten and grades 8 and 9. Prekindergarten and early childhood education are the only grades where the growth rate for white students exceeds the state average rate.

On average, the prekindergarten and kindergarten grades have higher percentages of minority students (60 percent) than the state. Statutory requirements for prekindergarten education stipulate that limited English proficient (LEP) and/or economically disadvantaged pupils are to be identified and served. These characteristics are highly correlated with ethnicity in Texas. In grades 1 through 6, the ethnic distribution is

virtually the same as the state, while the secondary grades 7 through 12 have slightly more white students, 50 percent compared with 48 percent statewide.

Curriculum Policy

Student enrollment growth provides information on the demand for teachers in certain grade levels. This knowledge of the demand for teachers is further supplemented by information on course enrollment of students in certain subject areas. Course enrollment and course offerings are both a function of student growth and of policies that shape future courses within high school course programs.

In 1984 the State Board of Education adopted curriculum essential elements that represented the core areas of knowledge and skills that must be included in instruction beginning with the 1985-86 school year. The implementation of a statewide curriculum was part of a larger educational reform movement that began in Texas in 1983. State requirements for graduation were also increased in 1984 from 18 to 21 units of credit. Students entering ninth grade in the 1984-85 school year were required to meet the increased graduation requirements. State board members felt that not all students were adequately prepared to achieve the more rigorous curriculum identified in the essential elements for the new high school courses and to satisfy the increased graduation requirements in English language arts and mathematics. They approved a series of below level courses as alternative courses for high school graduation purposes to meet the needs of these students.

Phase Out of Below Level Courses

In 1992 the state board discussed raising performance standards and levels of expectations for all students. One of the obstacles to this goal was the existence of the below level courses in English language arts, mathematics, and science. These courses tended to isolate low-performing students and to minimize expectations of them. Accordingly, the board adopted the schedule for phasing out below level courses shown in Chart 2.

Correlated Language Arts I, Fundamentals of Mathematics, Consumer Mathematics, and Introductory Physical Science will not satisfy graduation requirements after the 1991-92 school year. After the 1992-93 school year, Correlated Language Arts II - IV and Applied Biology will no longer satisfy graduation require-

Chart 2
Below-Level Courses Phase Out Schedule

	Last Year Offered for Graduation Credit				
Subject Areas	**1991-1992**	**1992-1993**	**1993-1994**	**1994-1995**	**1995-1996**
English Language Arts	Correlated Language Arts I	Correlated Language Arts II-IV			
Mathematics	Fundamentals of Mathematics; Consumer Mathematics				Pre-Algebra
Science	Introductory Physical Science	Applied Biology			
Business Education		Business Mathematics			

State Board of Education continuing efforts to raise the performance of students and implement a statewide curriculum led to the creation of below level courses in 1984 for those students who were not adequately prepared to achieve the new requirements. This chart indicates the last year such courses will satisfy graduation requirements.

Chart 3

Graduation Requirements: Minimum, Advanced, and Recommended Programs

Mimimum Requirements (21 Credits)	Advanced * (22 Credits)	Recommended ** (24 Credits)
English Language Arts Four Credits: English I, II, III, plus fourth credit of English selected from options	Four Credits: English I, II, III, plus fourth credit of English selected from options	Four Credits: English I, II, III, and IV
Mathematics Three Credits	Three Credits	Three Credits: Algebra I, Geometry, Algebra II.
Science Two Credits	Three Credits	Three of the following credits: • Physical Science • Biology I and II • Chemistry I and II • Physics I and II • Science III and IV
Social Studies Two and One-half Credits: World History Studies or World Geography Studies, U.S. History, U.S. Government (1/2)	Two and One-half Credits: World History Studies or World Geography Studies, U.S. History, U.S. Government (1/2)	Three and One-half Credits: U.S. History, World History Studies, World Geography, U.S. Government (1/2)
Economics One-half Credit: Economics with emphasis on the free enterprise system and its benefits	One-half Credit: Economics with emphasis on the free enterprise system and its benefits	One-half Credit: Economics
Other Languages None	Two credits in the same language	Three credits in the same language
Physical Education One and one-half credits	One and one-half credits	One and one-half credits
Health Education One-half credit	One-half credit	One-half credit
Computer Science None	One credit	One credit
Fine Arts None	One credit in Fine Arts or Speech	One credit in Fine Arts
TOTAL Program Credits Excluding Electives: 14 Credits	**19 Credits**	**21 Credits**
Total Elective Credits: Seven Credits	Three Credits	Three credits in one option Option I: math, science, one elective Option II: career and technology sequence Option III: college preparatory specialization
Total Credits: 21	**22**	**24**

ments. Business Mathematics, a business course, was added to the schedule to be deleted after the 1992-93 school year. Pre-Algebra will be discontinued after the 1995-96 school year.

Recommended High School Program

In 1992 the board also adopted a Policy Statement on High School Education developed by the Task Force on High School Education. The task force consisted of board members, representatives of the governor's office and state agencies, educators, and business representatives. Their charge was to develop a policy statement and make recommendations regarding high school education in Texas. At the same time they adopted the policy statement, the board endorsed recommended proficiencies for Texas high school graduates that grew from the work of the task force and other groups. The recommended proficiencies represented a standard core curriculum for all students in excess of the minimum graduation requirements.

One year later, the board adopted a recommended high school program. The recommended high school program provides a 21-credit academic core curriculum. In addition, before completion of the academic core, students identify an area of specialization to complete the final three-credit

* Advanced High School Honors Program — Five of the 22 credits in this program must be designated by the board of trustees as honors courses and must provide for modification of the courses by accelerating and providing greater depth and expanding the courses and their essential elements.

** Advanced Placement (AP), International Baccalaureate (IB), or appropriate college courses may be taken to fulfill requirements of the recommended high school program.

Measuring Teacher Diversity

Two indexes to measure the diversity of the teaching force, compared to the diversity of the student body, were developed. One index, the teacher diversity index, compares the ethnic makeup of the teaching force of each campus with the ethnic makeup of the students in the state (48 percent white, 35 percent Hispanic, and 14 percent African American). The other index, the student/teacher correspondence index, compares the ethnic makeup of the teaching force of each campus with the ethnic makeup of the students on that campus.

The diversity of the 4,613 campuses with more than 20 teachers was analyzed. Smaller campuses were excluded from the analysis to avoid the distortion that can occur when calculating percentages based on small numbers.

The value of the indexes can range from zero to 100, with 100 representing the standard of diversity measured by the index. For example, 100 on the teacher diversity index represents a teaching force that is 48 percent white, 35 percent Hispanic, and 14 percent African American. A 100 on the student/teacher correspondence index represents a teaching force that matches the ethnicity of the students on the campus, whatever the ethnic makeup of the student body.

School diversity is often discussed in relation to the type of community in which a school district is located. Campuses are grouped into categories based on the type of school district in which they are located. Factors such as proximity to a metropolitan area, size, and growth rate are used to determine the appropriate category for each district.

Campuses in major urban districts have the most diverse teaching staffs. Their teacher diversity index score of 72 is the highest of any group. The least diverse campuses are in the rural school districts, with a teacher diversity index score of 52. The campuses in other types of communities fall within a range of 56 to 59.

The values on the student/teacher correspondence index show a reverse of this pattern. Campuses in major urban districts have the lowest scores, indicating that their teaching staffs do not match the ethnic diversity of the students on their campuses. This pattern is found throughout the state. Campuses with diverse teaching staffs typically have less diverse student populations, often resulting from very large proportions of students from one ethnic group.

District Type	Number of School Districts	Number of Campuses	Teacher Diversity Index	Student/Teacher Correspondence Index
Major Urban	10	938	72	59
Major Suburban	62	1,088	57	72
Other Central City	24	578	59	73
Other CC Suburban	74	416	59	78
Independent Town	71	493	58	74
Non-Metro Fast Growing	49	114	59	76
Non-Metro Stable	249	775	56	72
Rural	176	211	52	76

component of the recommended program. Educators and students work together to identify the area of specialization which encourages students to demonstrate proficiency for attainment of credit and enables them to earn time in their high school schedules to take electives. Chart 3 compares current minimum and advanced graduation requirements with the recommended program. In some subject areas the number of credit requirements is not higher than the minimum graduation requirements, but fewer courses will meet that requirement. Other subjects require more credits than the minimum graduation requirements and in some cases more than the current advanced high school program.

The Texas Education Agency will begin collecting information from school districts in 1994-95 on the number of students who plan to complete the recommended high school program. This information will become part of the Academic Excellence Indicator System (AEIS) in 1997-98, but will not be included in those indicators that affect a campus accreditation rating. As schools begin implementing the recommended high school program, the demand for teachers in certain subject areas, such as foreign languages, will likely increase.

Curriculum Revision Process

When the essential elements were adopted in 1984, the State Board of Education provided for their ongoing evaluation in the form of a five-year curriculum review. A less formal review is conducted in the intervening years, and essential elements for specific courses are updated in conjunction with adoption of new textbooks for those courses. In 1992 an additional effort called *Raising Expectations for Students to Meet Real-World Needs* was undertaken to determine the essential skills and knowledge needed by high school graduates. Public participation in this process through real-world forums held across the state constitutes one of several major sources of information about student learning that will become part of a curriculum revision project.

Course Enrollment Trends

Course enrollments for the 1988-89, 1990-91, and 1992-93 school years were compared to identify enrollment increases beyond what would be expected due to student growth. One-third of all courses taught are at the elementary level. Secondary courses make up the remaining two-thirds of courses, and half of these are courses taught in either English, mathematics, or science.

From 1988-89 to 1992-93, growth in course enrollment overall exceeded growth in number of students, indicating that students are taking more courses each year than they were five years ago. Since 1988-89, the group of courses to experience the largest increase in enrollment has been English as a second language. Of the secondary subjects, science courses have shown the greatest increase, followed closely by English. Mathematics showed only a slight increase. In the aggregate, all other subject areas show very little change in enrollment.

Science

Each of the courses included as part of the phase out of below level courses had sharp declines in enrollment compared to 1988-89. As below level courses are phased out, other courses offered in the same subject area record increases in enrollment.

Noncollege preparatory science courses are defined as district requirements in the sciences plus general electives in science, including Biology I. Intermediate level courses include Physics I, and Chemistry I, which are typically courses where students determine their interest in the sciences. College preparatory or advanced science courses include Biology II, Chemistry II, Physics II, and other honors or magnet school courses in science.

As expected, the noncollege preparatory science courses have increased in enrollment since 1988-89, due in part to the phase out of Introductory Physical Science. Science course enrollment figures also indicate an increase in enrollment in intermediate level courses, primarily in physics and chemistry. As Chart 4 shows, the increased enrollments in noncollege preparatory science courses cannot be explained completely by the phase out of below level courses. The small increases in advanced science course enrollment are the result of increases in high level physics and chemistry courses rather than biology.

English

General English course enrollment has increased since 1988-89, again undoubtedly due in part to the phasing out of below level courses. Journalism and speech courses have not increased in enrollment above student growth during this period. Expectations about the public speaking skills of Texas high school graduates have been raised at real-world forums across the state, and during discussions preceding approval of the recommended high school program. The recommended high school program requires English IV rather than a fourth credit of English selected from options that include speech and journalism. Although the essential elements for the English I-IV courses can accommodate teaching speaking skills, this is seldom incorporated into these courses. This topic will continue to be discussed as the curriculum revision process continues.

Mathematics

Although mathematics course enrollment did not show a marked increase beyond student growth, the increases in the particular areas of mathematics are of note. The phasing out of Fundamentals of Mathematics and Consumer Mathematics resulted in the expected increased enrollment in noncollege preparatory mathematics courses such as Informal Geometry and Math of Consumer Economics. However, as Chart 4 shows, enrollment in Algebra and advanced mathematics courses increased well above the increase in noncollege preparatory mathematics courses. Proportionately, more students are enrolling in advanced level mathematics courses than they were five years ago.

TEACHER DEMOGRAPHICS

In 1992-93, the Texas teaching force was 77 percent white, 14 percent Hispanic, eight percent African American, and less than one percent native American and Asian/Pacific Islander. Minority teachers have increased in number over the past few years; however, the percentage of total teachers has increased only slightly. The small number of native American and Asian/Pacific Islander teachers results in large growth rates but does not contribute significantly to the total minority teaching force. The Hispanic teaching force, the largest minority group, increased by 60 percent in the decade from 1981-82 to 1991-92, and continued to grow at a higher rate than all other groups from 1991-92 to 1992-93. African American teachers have increased only slightly in numbers, and over the last ten years have grown at a lower rate than white teachers.

Teachers are disbursed throughout the state much like students. Nearly 70 percent are located in the larger urban areas and their suburbs, and the remaining thirty percent in smaller districts in towns and rural areas. Minority teachers, however, are employed predominately in the urban areas. Over half of all African Ameri-

Chart 4

Course Enrollment Change From 1988-89 to 1992-93

Subject	1988-89	1992-93 Estimate Based on Student Enrollment Growth	1992-93 Estimate Based on Course Enrollment Growth	Actual 1992-93	Difference in Students from Course Enrollment Estimate
Advanced Math	307,351	332,175	358,568	402,066	43,498
Algebra I	193,879	209,538	226,187	263,289	37,102
Noncollege Prep. Math	618,823	668,804	721,943	774,675	52,732
Below Level Math	241,945	261,487	282,262	152,014	(130,248)
TOTAL MATH	1,361,998	1,472,004	1,588,959	1,592,044	3,085
Advanced Science	18,514	20,009	21,599	22,547	948
Intermediate Science	104,354	112,782	121,743	133,755	12,012
Noncollege Prep. Science	1,002,783	1,083,776	1,169,885	1,255,736	85,851
Below Level Science	43,655	47,181	50,930	4,551	(46,379)
TOTAL SCIENCE	1,169,306	1,263,748	1,364,157	1,416,589	52,432

From 1988-89 to 1992-93, growth in course enrollment overall exceeded growth in number of students. Secondary mathematics and science are two subject areas that have shown shifts in enrollment. These courses are grouped in the following manner.

Mathematics

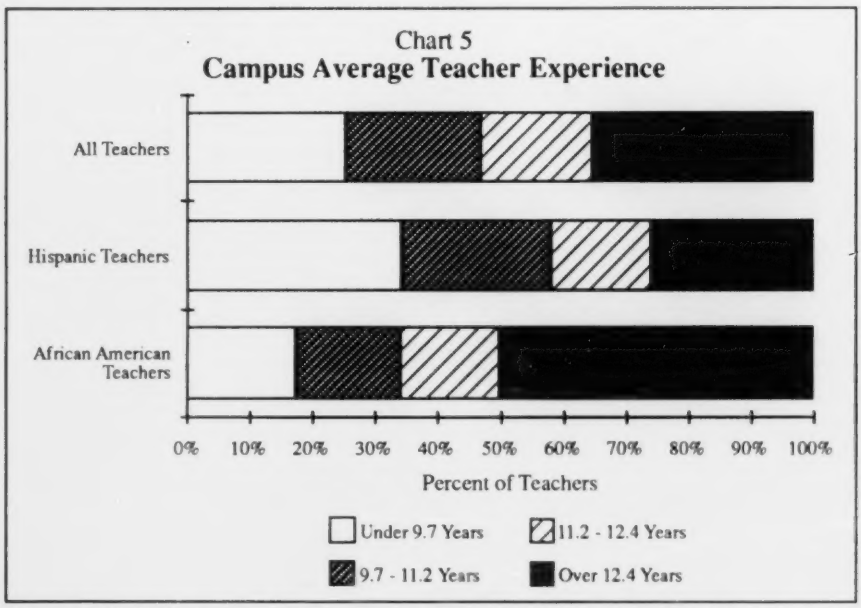
Advanced:	mathematics courses above the level of Algebra I
Algebra I:	one unit of instruction that includes comparison of the real number system and its various subsystems
Noncollege Preparatory:	courses such as Informal Geometry and Math of Consumer Economics
Below Level:	Fundamentals of Mathematics, Consumer Mathematics, and Pre-Algebra

Science

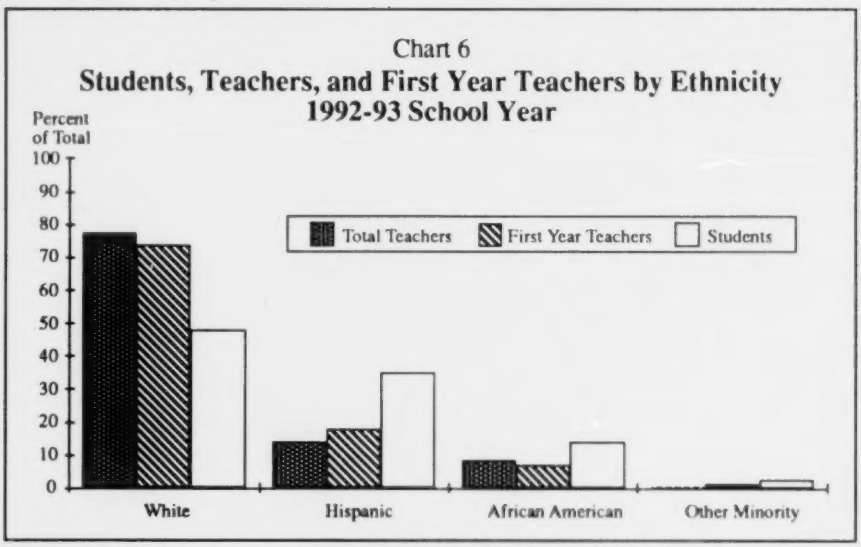
Advanced:	Biology II, Chemistry II, Physics II, and other honors or magnet school courses in science.
Intermediate:	includes Physics I, and Chemistry I, and other courses where students determine their interest in the sciences
Noncollege Preparatory:	courses defined as district requirements in the sciences, plus general electives in science, including Biology I
Below Level:	Introductory Physical Science, which no longer satisfies graduation requirements

can teachers are employed in the seven largest major urban school districts. Similarly, 43 percent of all Hispanic teachers are found in the large urban school districts and their suburbs, although an additional 37 percent are employed in other central cities and their suburbs.

Higher percentages of minority teachers are employed at the elementary campuses and slightly lower percentages in high schools. Hispanic teachers particularly appear to favor elementary campuses over middle schools and high schools. The gender of the teaching force also varies by campus type. About one-fourth of all Texas teachers are on high school campuses, but half of all male teachers are high school teachers.



About half of all teachers are on campuses with below average teacher experience, and about half are on campuses with above average teacher experience. However, two-thirds of all African American teachers are on campuses with above average teacher experience, and half are on campuses with over 12.4 average years of experience.



Although the ethnic makeup of students and teachers differ, first year teachers indicate possible future changes in teacher demographics. There is a slight increase in the percent Hispanic first year teachers as compared to all teachers, however, African American percentages of first year teachers is lower than that of all teachers.

African American teacher experience varies greatly from other ethnic groups. The average classroom teaching experience for Texas teachers is 11.2 years. As shown on Chart 5, over 50 percent of all African American teachers are on campuses where the average teacher experience is over 12.4 years, compared to 35 percent of all teachers. Forty-five percent of all African American teachers are found on campuses where the average teacher age is over 43 years old, while only 23 percent of all teachers in Texas are found on the same campuses. The low growth rate of African American teachers in Texas, plus the potential of a substantial percentage nearing retirement sooner than other ethnic groups, suggests continued diminishing numbers of African American teachers in the state.

Conversely, Chart 5 shows that Hispanic teachers appear to have less experience. Over half of all Hispanic teachers are on campuses with average teacher experience less than 11.2 years. Fifty-seven percent of all Hispanic teachers are found on campuses where the average teacher age is under 41 years old. Hispanic teachers have the highest growth rate of all teachers, which helps explain the greater number of new entrants to teaching.

Teaching Assignments

The number of minority teachers in the work force is a direct result of trends in the diversity of first year teachers. Of the 219,000 full time equivalent teachers in Texas in 1992-93, 6.5 percent are first year teachers.

The percentage of minority teachers in this first year group is somewhat higher than that of the total teaching force, as shown on Chart 6. The percent Hispanic for first year teachers is four percent higher than for total teachers. African Americans as a percentage of first year teachers, however, is slightly lower than that of African Americans in the total teaching force. Native American and Asian teachers represent a slightly higher percentage of first year teachers over total teachers.

The subject areas taught by minority teachers are relevant in the assessment of shortage areas. If increasing the number of minorities in teaching is a goal, then setting targets for what they teach is also important. The presence of minorities in certain fields provides role models for students in a number of professional areas.

A 1992 national survey by the National Center for Educational Information (NCEI) asked prospective teachers to indicate the subject areas in which they wanted to teach. Areas of the greatest projected demand were well represented by the responses of these prospective teachers.

Twenty-two percent of all prospective teachers in this 1992 survey preferred to teach in bilingual education, 31 percent of minority prospective teachers made this choice. Thirty-eight percent of all prospective teachers and 34 percent of minority prospective teachers want to teach science (biology, chemistry, physics, general, and other sciences). Other national shortage areas such as mathematics, special education, and foreign languages were also preferred by prospective teachers.

To meet the high demand for teachers in shortage areas, teachers are being certified through alternative routes across the nation. From 1985 to 1990, about 20,000 teachers were certified through alternative certification programs (ACPs). By 1992, that number had doubled to 40,000 individuals certified. In Texas, 48 percent of the 2,079 ACP candidates seeking initial certification in 1992-93 were minorities.

Subject areas designated as shortage areas in Texas are special education, bilingual education, and secondary mathematics and science. In Texas, not all of these areas seem to attract minority teachers.

As shown on Chart 7, special education and bilingual education do have high percentages of minority teachers. ACPs promote access to these subjects. Secondary mathemat-

Chart 7
Texas Teaching Assignments by Ethnicity and Gender

	Total Teachers	White	African American	Hispanic	Other Minorities	Males
Elementary	39%	42%	41%	27%	32%	12%
Special Education	**9%**	**9%**	**13%**	**7%**	**10%**	**6%**
Bilingual Education	6%	2%	3%	29%	10%	4%
Mathematics	**6%**	**6%**	**5%**	**4%**	**11%**	**9%**
Science	5%	5%	4%	3%	7%	10%
Social Studies	**5%**	**5%**	**5%**	**4%**	**3%**	**13%**
Physical Education	4%	4%	5%	4%	3%	12%
All Other Courses	**25%**	**26%**	**24%**	**22%**	**22%**	**34%**
	100%	100%	100%	100%	100%	100%

Teaching assignments vary among different ethnic groups. Thirteen percent of all African American teachers are assigned to special education. Of all Hispanic teachers, 29 percent teach bilingual education. Both Hispanics and African Americans are found in lower proportions in the mathematics and sciences as compared to all other minorities. The most common teaching assignment of male teachers is social studies, followed by elementary education and physical education/health.

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ics and science have not attracted large numbers of minorities.

There are over 18,000 African American teachers in Texas and, like the total teaching force, about 40 percent teach elementary classes. The second most popular group of students taught by African American teachers is special education, which accounts for 13 percent of African American teachers. Among first year teachers this jumps to 22 percent. This compares to nine percent of all teachers in the field of special education.

Of the 30,500 Hispanic teachers, 29 percent teach bilingual education and English as a second language (ESL) courses, compared to six percent of all teachers. This percentage is even higher in the first-year group, where 35 percent teach bilingual education.

Hispanic and African American representation are less evident in mathematics and science; however, native American and Asian/Pacific Islander teachers are represented among the teachers of these classes.

Mathematics

Mathematics accounts for three percent of all teachers. Of the small number of native American and Asian teachers, 11 percent teach mathematics. This is a greater percentage than those teaching special education (ten percent) or bilingual education (ten percent). Thirteen percent of native American and Asian first year teachers are teaching mathematics. The percentage of Hispanic and African American teachers in mathematics is slightly lower than each of the other ethnic groups.

Science

Nearly 11,000 Texas teachers teach secondary science classes, yet this represents only five percent of all teachers. Like mathematics, Hispanic and African American teachers are underrepresented in the sciences, but it is among Hispanic teachers that the low representation is most striking.

Even more disparities are evident when science classes are grouped based on the level of the class. Hispanic teachers make up 14 percent of all teachers but only about 9 percent of all advanced and intermediate level science course teachers. These courses are taught by an even lower percentage of African American teachers, in the range of one to three percent. Teachers identified as other minority groups, however, are well represented in advanced science classes.

The representation of minorities in the noncollege preparatory science courses is better. Hispanic teachers are somewhat underrepresented in noncollege preparatory sciences, while African American and other minority teachers are represented at rates similar to their representation in the teaching force.

The numbers teaching advanced and intermediate level science courses were insignificant for the first year teachers. This is not surprising, given that new teachers are disproportionately assigned to lower level classes.

It appears that minority teachers are being attracted to the shortage areas of bilingual and special education; however, there may still be a challenge for teacher diversity in the mathematics and science subject areas. Although these subject areas have only recently been added to the Texas shortage area list for loan deferment purposes, they have been recognized as nationwide shortage areas for several years.

The number of entering minority teachers in mathematics and science in Texas does not appear to reflect the findings of the NCEI national survey in regard to prospective teacher subject area preferences, which reports minority teachers disproportionately entering teaching fields that are experiencing shortages.

DIVERSITY

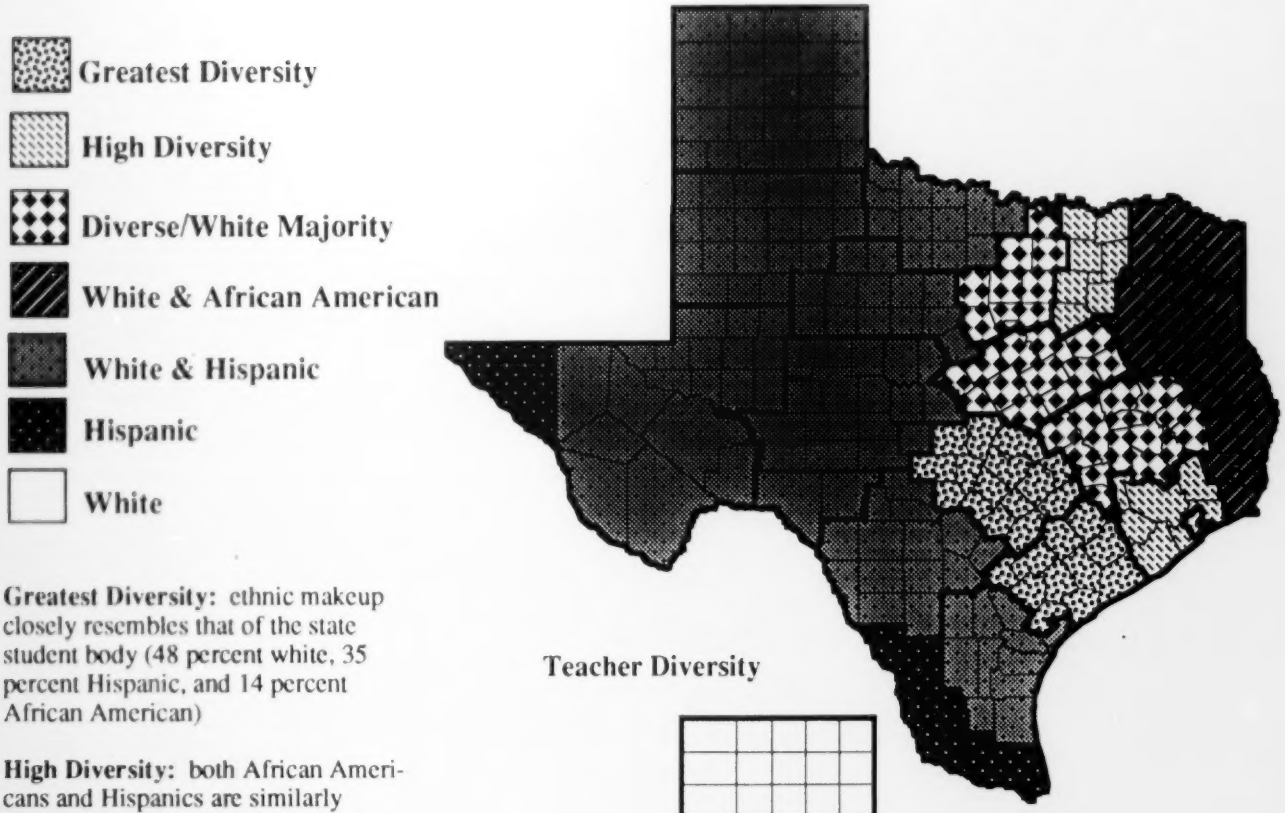
One way to measure the diversity of the teaching force is by comparing the ethnic makeup of the teaching force to the ethnic makeup of the student body. The diversity of a campus teaching force can be compared to the diversity of the student population statewide, and to the diversity of the campus student population it serves. The maps on page 13 illustrate geographically the student and teacher diversity of Texas schools.

Student Diversity

Using the ethnic makeup of the students of the state as a standard for diversity (48 percent white, 35 percent Hispanic, and 14 percent African American), the Austin and Victoria education service center (ESC) regions as a group have the greatest diversity among students. The Austin ESC region is 59 percent white, 29 percent Hispanic, and 10 percent African American. Areas such as Houston and Richardson/Dallas also have a white student population near 50 percent, but differ from Austin and Victoria in that they have about equal percentages of African American and Hispanic students. The student populations in the northeast urban areas of Fort Worth, Waco, and Huntsville show a clear majority of white students (over 60 percent), combined with equal percentages of African American and Hispanic students.

All other regions in Texas reflect only one or two ethnic groups. Regions along the eastern border of the state have predominately white student bodies, with fairly large proportions of African American students (compared to the state) and

Student Diversity



Greatest Diversity: ethnic makeup closely resembles that of the state student body (48 percent white, 35 percent Hispanic, and 14 percent African American)

High Diversity: both African Americans and Hispanics are similarly represented, but make up less than 50 percent of this group.

Diverse/White Majority: both African Americans and Hispanics are similarly represented, but make up less than 40 percent of this group.

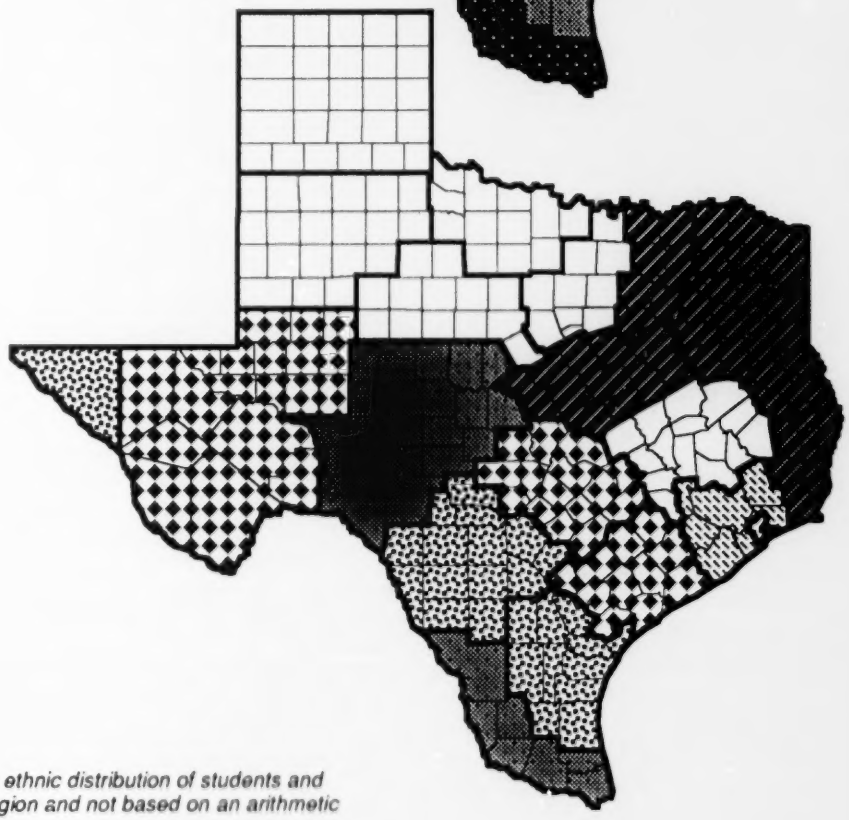
White & African American: African Americans make up 10-20 percent of this group, Hispanics less than eight percent.

White & Hispanic: Hispanics make up 15-70 percent of this group, African Americans less than eight percent.

Hispanic: Hispanics make up 80 percent or more of this group.

White: Minorities make up less than 10 percent of this group.

Teacher Diversity



This scale was developed from a review of the ethnic distribution of students and teachers in each Education Service Center Region and not based on an arithmetic distribution of percentages.

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very low percentages of Hispanic students. A large number of regions in the western part of the state have a white and Hispanic student population, with few African American students. Two regions are virtually represented by one ethnic group — the El Paso and Edinburg regions have 80 and 94 percent Hispanic students, respectively.

Teacher Diversity

Although the majority of teachers in Texas are white, the teacher diversity map shows the extent to which campuses do reflect some ethnic diversity among their teaching force. Again, using the ethnic distribution of the student population as a standard (48 percent white, 35 percent Hispanic, and 14 percent African American), the region of the state that achieves the greatest diversity of teachers is the San Antonio region. The teaching force in the San Antonio ESC region is 68 percent white, 26 percent Hispanic, and five percent African American.

The El Paso and Corpus Christi regions also have greater diversity in their teaching forces than other regions of the state. The Houston region has a fairly diverse teaching force, but with a much lower percent of Hispanic teachers. The southwestern urban areas of Austin and Victoria, and the Midland region, have a clear majority of white teachers (over 85 percent) combined with a mix of Hispanic and African American teachers.

The Edinburg and San Angelo regions have white and Hispanic teaching forces, with very few African American teachers. With the San Angelo region about 85 percent white and the Edinburg region over 70 percent Hispanic, their teaching forces are mirror images.

Five regions in the eastern half of the state have white and African American teaching forces with few Hispanic teachers. The panhandle and north central regions, and the Huntsville region in east Texas, all have over 90 percent white teachers.

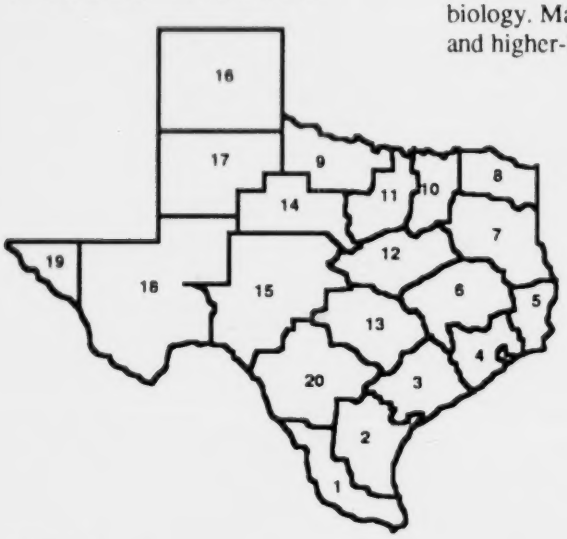
Gender Equity

Students

Numerous studies conducted over the last 20 years indicate that females and males meet with different, sometimes contradictory, experiences in school. Although male and female students in high school participate in roughly the same number and types of courses, the patterns of course-taking differ. Males are more likely to take physics and advanced chemistry, while females are more apt to take advanced biology. Males also enroll in calculus and higher-level mathematics courses more often than females. During the 1992-93 school year, of Texas students who continued in math beyond calculus, more females were enrolled in courses emphasizing applied mathematics skills, such as Math of Consumer Economics and Advanced Math for Business. More males, on the other hand, took Computer Mathematics, Number Theory, and Linear Algebra. Nationally, these patterns continue in college and graduate school.

A study by the American Association of University Women Educational Foundation suggests that teachers interact differently with male and female students. Males receive more attention from teachers in terms of both the amount and content of responses. In elementary and middle school, males tend to call out answers more often than females. In high school and college, teachers are more likely to solicit responses from males. Moreover, some studies report that the amount of encouragement students receive from teachers differs based on subject matter, with males receiving more attention in mathematics and science, and females more in literature and art.

Male and female students also experience different levels of achievement in school based on the subject matter. For example, as Chart 8 shows, females received higher scores in reading on the Texas Assessment of



Education Service Center Regions

1	Edinburg	11	Fort Worth
2	Corpus Christi	12	Waco
3	Victoria	13	Austin
4	Houston	14	Abilene
5	Beaumont	15	San Angelo
6	Huntsville	16	Amarillo
7	Kilgore	17	Lubbock
8	Mt. Pleasant	18	Midland
9	Wichita Falls	19	El Paso
10	Richardson	20	San Antonio

Academic Skills (TAAS) test for every grade level in school year 1990-91, and for every grade level except Grade 11 in school years 1991-92 and 1992-93. For the same years, females received higher scores in writing on the TAAS for every grade level, without exception. However, on the math portion of the TAAS, females received higher scores for Grades 5 and 7, but males received higher scores for Grades 3, 9, and 11.

Males tend to outperform females in both areas of the Scholastic Aptitude Test (SAT). In Texas, the total SAT score for males consistently averages 50 points higher than the total score for females. Among the American College Testing (ACT) examinees in Texas, males outscore females on two of four components of the test.

Gender Equity

Teachers

The representation of males and females in the teaching force is considered by many as the result of gender discrepancies in education. Teacher recruitment programs are beginning to focus on potential male teacher candidates. The Department of Defense has begun Troops to Teachers, a program recruiting military personnel to teaching by making grants for salaries available to school districts. Alternative certification programs in Texas provide change of career opportunities for former military personnel, as well as for all degree holders.

Male teachers represent 22 percent of the total Texas teacher population. Fifty percent of all teachers in the state teach in elementary campuses; yet, over 50 percent of all male teachers teach in high schools. Campuses on which the average years of experience of teachers is higher also have higher percentages of male teachers.

Of the 47,000 male teachers in Texas, only 12 percent teach elementary classes. This increases to 15 percent for first year teachers, an encouraging sign since a smaller proportion of all first year teachers are assigned to elementary classes.

Smaller percentages of male teachers are found in the shortage areas of special education and bilingual/ESL education compared to the total teaching force, but larger percentages teach science and mathematics. As Chart 7 shows, almost 25 percent of male teachers teach social studies or physical education compared to less than ten percent of all teachers in these two subject areas combined. Male and female teachers are similar in all other regards.

PIPELINE OF TEXAS TEACHERS

Chart 9 illustrates the loss of minorities at each step in the process of becoming one of the 14,318 new teachers in Texas public schools in the 1992-93 school year. The table assumes common progression through high school and four years of college and begins with the 1982-83 school year when the 1992-93 new teachers were in the seventh grade. These students would have graduated from high school in 1987-88 and graduated from college in 1991-92, assuming a four year degree program. Many students are separated from their

Chart 8
Gender Differences on TAAS Performance

	Reading			Writing			Mathematics		
	1990-91	1991-92	1992-93	1990-91	1991-92	1992-93	1990-91	1991-92	1992-93
Grade 3	F	F	F	F	F	F	M	M	M
Grade 5	F	F		F	F		F	F	
Grade 7	F	F	F	F	F	F	F	F	F
Grade 9	F	F		F	F		M	M	
Grade 11	F	M	M	F	F	F	M	M	M

F = TAAS exams on which females outperformed males M = TAAS exams on which males outperformed females

Male and female students experience different levels of achievement in school based on subject matter. Females receive higher scores on the Texas Assessment of Academic Skills (TAAS) over males in most grades in reading and writing. Mathematics TAAS scores are higher among male students in most grades tested.

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Chart 9

Pipeline of Texas Teachers

Public School Supply Pool Milestones	Year	White	Hispanic	African American	Other	Total
7th Grade Public School Enrollment	1982-83	143,564	69,533	34,622	3,633	251,352
TEAMS Exit*	1986-87					
Total Students Tested		113,619	43,222	23,368	4,147	184,356
Total Students Passing All Tests Taken		102,480	31,311	15,289	3,200	152,280
12th Grade Public School Enrollment	1987-88	112,005	42,415	24,328	3,986	182,734
Public High School Graduates	1987-88	105,262	39,654	22,728	3,792	171,436
Graduates Planning to Enter College	1987-88	69,022	19,537	11,052	2,606	102,217
Scholastic Aptitude Test (SAT)	1987-88	54,951	10,902	6,874	4,436	80,107
ACT Assessment	1987-88	29,468	8,554	3,581		46,288
Advanced Placement (AP) Exams	1987-88	7,807	854	313	1,033	10,478
Public College First-Time Freshman Enrollment	1988-89	87,431	25,449	13,028	3,556	130,744
TASP	1988-89					
Total Teacher Education Students Tested		10,211	3,196	825	463	14,695
Total Teacher Education Students Passing All Sections		9,235	2,428	532	314	12,509
ExCET **	1991-92					
Total University-based Tested		8,111	1,587	390	273	10,361
Total University-based Passing		7,681	1,356	281	87	9,547
Alternative Certification Passing		825	461	163	20	1,523
Out-of-State Passing		3,241	103	154	47	3,573
Total Passing From All Certification Sources		11,747	1,920	598	154	14,643
New Teachers (Full Time Equivalents (FTEs))	1992-93	10,568	2,557	1,019	173	14,318
Total Teachers (FTEs)	1992-93	169,401	30,599	18,311	1,033	219,344

This information is taken from the Texas Education Agency Public Education Information Management System (PEIMS), College Board, American College Testing (ACT), and Texas Higher Education Coordinating Board.

* Texas Education Assessment of Minimum Skills (TEAMS) exit-level examination administered to eleventh-grade students.

** Examination for the Certification of Educators in Texas (ExCET) must be passed by prospective teachers before certification.

cohort before graduating from high school or while in college. According to preliminary 1993-94 data, 20 percent of Texas twelfth grade students were over age for their grade, suggesting that they had been retained at least once. More than five percent were two or more years over age. The percentages are higher for minority students. A national survey by the National Center for Educational Statistics (NCES) reports that less than half of the 1990 college graduates completed their baccalaureate degree in four or fewer years, while the majority took five or more years to graduate. Consequently, any year will actually include students from several cohorts.

In 1982-83, 43 percent of the 251,352 seventh grade students were minorities. Five years later, minorities make up only 39 percent of the 182,734 twelfth grade students. Over 37,000 minorities from the pool of potential teachers represented by the 1982-83 seventh grade class were lost before they reached the twelfth grade. This includes over 27,000 Hispanic students, or 39 percent of the seventh grade class. State dropout data consistently report Hispanic students dropping out at a higher rate than any other ethnic group.

Since 1985-86, passing an exit-level examination has been another achievement milestone for Texas public school students. Chart 10 shows that in 1986-87, minorities made up only 38 percent of the 184,356 eleventh grade students taking the Texas Educational Assessment of Minimum Skills (TEAMS) exit-level examination. These numbers represent students exempted from the TEAMS test as well as students who dropped out before the test was given.

Not only did fewer minority students from the 1982-83 seventh grade class take the TEAMS exit-level test than white students, minority students also had lower passing rates. African American students had the lowest passing rate, with only two-thirds passing all tests taken on the first administration of the test. Throughout the pipeline there is a pattern of relatively lower scores on standardized tests for African American students. For some tests, such as the Scholastic Aptitude Test (SAT) and College Board Advanced Placement (AP) examinations, it is well documented that minority and female students have taken relatively fewer of the college preparatory mathematics and science courses associated with high performance on the tests.

There were over 66,000 minority students in the 1987-88 graduating class. This included 66 percent of the African American students and 57 percent of the Hispanic students from the 1982-83 seventh grade class. About half of minority graduates were planning to attend college within one year of graduation, compared to two-thirds of white graduates. African American and Hispanic students accounted for about 30 percent of 1987-88 graduates planning to attend college, but only 22 percent of SAT examinees and 26 percent of American College Testing (ACT) examinees. Hispanic students had an average SAT total score that was over 100 points lower than the average for white students; the average score for African American students was almost 200 points lower.

The SAT total score ranges from 400 to 1600. ACT performance, which can range from 1 to 36 for ACT Composite scores, follows a similar pattern. The average ACT composite score was 17.8 for Hispanic students and 16.5 for African American students, compared to 20.9 for white students.

Taking the SAT or ACT may be indicative of the type of institution the student is planning to attend immediately following high school graduation. Test scores narrow the list of colleges to which many students may be admitted immediately after graduation.

Lower SAT and ACT test scores may discourage or prevent Hispanic and African American students from entering certain colleges immediately after graduation. African American and Hispanic students represent only 11 percent of the candidates taking AP examinations. Scores on the AP examinations represent the extent to which students can already perform college level work.

Hispanic and African American students made up about 30 percent of all first-time freshmen entering Texas public junior and senior colleges in 1988-89. This includes entering students from all sources, not just prior year graduates of Texas public schools.

All students entering Texas public colleges and universities must pass the Texas Academic Skills Program (TASP) test no later than the semester in which they accumulate nine or more semester hours. Prior to the 1993-94 school year, some exceptions to this rule were allowed. The TASP is a basic skills test of reading, writing, and mathematics.

In 1988-89, the first year of the administration of the TASP, 14,695 students who reported they were intending to teach took the test. This total number taking the TASP in 1988-89 is low due to the first year of test administration. However, the ethnic distribution of the students is similar to the distribution in the following three years. Approximately equal percentages of all white and Hispanic students report that they are planning to teach. The percentage of African American freshmen planning to teach

(Continued on Page 20)

Chart 10

Pipeline of Texas Teachers — Percentages

Public School Supply Pool Milestones	Year	White	Hispanic	African American	Other	Total
7th Grade Public School Enrollment	1982-83	57.1%	27.7%	13.8%	1.4%	100.0%
TEAMS Exit*	1986-87					
Total Students Tested		61.8%	23.5%	12.7%	2.3%	100.0%
Total Students Passing All Tests Taken		67.3%	20.6%	10.0%	2.1%	100.0%
12th Grade Public School Enrollment	1987-88	61.3%	23.2%	13.3%	2.2%	100.0%
Public High School Graduates	1987-88	61.4%	23.1%	13.3%	2.2%	100.0%
Graduates Planning to Enter College	1987-88	67.5%	19.1%	10.8%	2.5%	100.0%
Scholastic Aptitude Test (SAT)	1987-88	68.6%	13.6%	8.6%	5.5%	100.0%
ACT Assessment	1987-88	63.7%	18.5%	7.7%		100.0%
Advanced Placement (AP) Exams	1987-88	74.5%	8.2%	3.0%	9.9%	100.0%
Public College First-Time Freshman Enrollment	1988-89	66.9%	19.5%	10.0%	2.7%	100.0%
TASP	1988-89					
Total Teacher Education Students Tested		69.5%	21.7%	5.6%	3.2%	100.0%
Total Teacher Education Students Passing All Sections		73.8%	19.4%	4.3%	2.5%	100.0%
ExCET **	1991-92					
Total University-based Tested		78.3%	15.3%	3.8%	2.6%	100.0%
Total University-based Passing		80.5%	14.2%	2.9%	0.9%	100.0%
Alternative Certification Passing		54.2%	30.3%	10.7%	1.3%	100.0%
Out-of-State Passing		90.7%	2.9%	4.3%	1.3%	100.0%
Total Passing From All Certification Sources		80.2%	13.1%	4.1%	1.1%	100.0%
New Teachers (Full Time Equivalents (FTEs))	1992-93	73.8%	17.9%	7.1%	1.2%	100.0%
Total Teachers (FTEs)	1992-93	77.2%	14.0%	8.3%	5.0%	100.0%

This information is taken from the Texas Education Agency Public Education Information Management System (PEIMS), College Board, American College Testing (ACT), and Texas Higher Education Coordinating Board.

* Texas Education Assessment of Minimum Skills (TEAMS) exit-level examination administered to eleventh-grade students.

** Examination for the Certification of Educators in Texas (ExCET) must be passed by prospective teachers before certification.

Diversity, Socioeconomic Status, and Student Performance

Research shows a high correlation between student economic status and academic achievement. Texas campuses with high concentrations of economically disadvantaged students have below average percentages of students passing all TAAS tests taken. These same campuses have higher percentages of minority students than the state average.

Teacher diversity and the correspondence of the teaching staff to the student body are measured by index values described on page 7. The index values of 4,613 campuses in Texas with more than 20 teachers are grouped by the percent of students economically disadvantaged and percent passing all TAAS tests taken.

There is a positive relationship between percent of students passing all TAAS tests taken and similarity of the campus teaching staff to the student body. The student/teacher correspondence index value increases from a low of 58 for campuses with under 33 percent of students passing all TAAS tests taken, to a high of 82 for campuses with over 60 percent of students passing. This pattern generally continues to hold when campuses are grouped by percent of students economically disadvantaged. The fact that the two characteristics — similarity of the teaching staff to the student body and high student performance — appear in conjunction with one another does not mean that one explains the other.

As the teacher diversity index shows, high performing campuses do not necessarily have more diverse teaching staffs when compared to the statewide student diversity (48 percent white, 35 percent Hispanic, 14 percent African American). The most diverse teaching staffs are found on campuses with over 60 percent of students economically disadvantaged and under 47 percent of students passing all TAAS tests taken.

Student/Teacher Correspondence Index

Percent of Students Economically Disadvantaged	Number of Campuses	Percent of Students Passing All TAAS Tests Taken			
		Under 33	33 - 47	47 - 60	Over 60
Under 20	921	76	75	79	85
20 - 30	593	61	72	76	81
30 - 40	559	62	70	71	75
40 - 60	1,062	59	63	69	72
60 - 80	807	55	57	62	57
Over 80	671	60	64	68	80
All Campuses	4,613	58	65	74	82

Teacher Diversity Index

Percent of Students Economically Disadvantaged	Number of Campuses	Percent of Students Passing All TAAS Tests Taken			
		Under 33	33 - 47	47 - 60	Over 60
Under 20	921	53	60	56	54
20 - 30	593	59	60	57	56
30 - 40	559	63	59	59	57
40 - 60	1,062	65	64	60	58
60 - 80	807	71	70	65	66
Over 80	671	70	69	62	49
All Campuses	4,613	69	64	58	55

is about one-third less. During the first four years of administration of the TASP, examinees reporting that they planned to teach represented about 21 percent of the freshman classes. Prospective African American teachers represented only about 15 percent of the freshman classes.

The TASP is a milestone for white students, over 90 percent of whom pass the test. In 1988-89, it may have presented more of a barrier to Hispanic and African American students. Only 76 percent of Hispanic students and 66 percent of African American students passed the TASP. Students who do not pass the TASP are offered basic skills courses and have additional opportunities to take the test.

In the following year of 1989-90, only 38 percent of the prior year freshman class was still enrolled at the same institution. Nearly the same percentage of white and Hispanic students were still enrolled; 34 percent of African American students were still enrolled.

The final milestone in the path to teacher certification is the Examination for the Certification of Educators in Texas (ExCET) test. The ExCET is a series of 64 subject and program-specific competency tests covering pedagogy and content that prospective teachers must pass in relevant areas before certification.

In 1991-92, the year our cohort of students was college seniors, 10,361 students took the ExCET examinations. This group represents 79 percent of the white freshmen who reported they were intending to teach, 50 percent of the Hispanic freshmen, and 47 percent of the African American freshmen. Teacher education programs are losing prospective minority teachers before they complete the program. Many of these students are dropping out of college, not just leaving the teacher education program. In 1991-92, the six-year graduation rate for Texas public senior colleges was 48 percent. This means that less than half of the 1986-87 freshman class had graduated by 1991-92. Just over half of the white students had graduated within six years, compared to 36 percent of Hispanic students and 27 percent of African American students.

Ninety-five percent of the white ExCET examinees passed the necessary tests to be eligible for certification. This compares to 85 percent of the Hispanic examinees and 72 percent of the African American examinees. From our original pool of over 251,000 seventh grade students, less than 10,000 passed all the milestones to be eligible to teach in Texas public schools. The prospective teachers were 80 percent white, 14 percent Hispanic, and 3.2 percent African American — as a group even less diverse than the current teaching force.

At some of the milestones, some of the cohort of students chose another direction. At others, many students and especially a disproportionate number of minority students did not successfully pass the milestone.

Two additional sources of new teachers for the 1992-93 school year were alternative certification programs (ACPs) and out-of-state teachers. In 1991-92, 46 percent of the 1,523 ACP interns that passed the necessary ExCET examinations to qualify for a certificate were minorities. The 3,573 out-of-state teachers who passed the ExCET examinations were 91 percent white. It is especially notable that fewer than three percent of the new out-of-state teachers were Hispanic. This may reflect the ethnic composition (or lack of diversity) of the states from which these prospective Texas teachers are moving. Oklahoma and Louisiana are the two states supplying the largest number of out-of-state teachers in 1991-92.

IMPROVING THE STATUS OF MINORITY STUDENTS IN EDUCATION

Over the past five years, educational leaders have organized themselves both locally and nationally to study these trends and to make recommendations for improving the status of minority students at all levels of the education system. With districts competing for a limited number of qualified minority educators, state policy makers have focused on increasing the pool of candidates.

The Texas Educational Opportunity Plan for Public Higher Education (1989-1994) was written by the Texas Higher Education Coordinating Board and the Advisory Committee on Educational Opportunity Planning, a ten-person advisory committee representing Texas public colleges and universities. This plan addresses the principle that all residents of the state should have an equal opportunity to pursue higher education regardless of their ethnicity, race, or socioeconomic status. The plan focuses on recommendations to address the lack of representation of African Americans and Hispanics in the Texas higher education system.

Overall, the recommendations made in this plan mirror those made by other national groups, including the Tomás Rivera Center, a national institute for policy studies headquartered in Claremont, California; the Education Commission of the States, a nonprofit, nationwide interstate commission formed in 1965 to develop policies to improve the quality of education at all levels; and the Alliance of Leaders for Minority Teachers, an information sharing force formed in 1988 and made up of 22 representatives from education, policy, and research organizations. The recommendations tend to center around three broad themes: collaboration, support, and awareness and information needs.

As outlined in Chart 11, the plan recognizes the need to begin recruitment and retention efforts early to encourage students to graduate from high school and pursue college educations. Collaborations among local school districts, the state, teacher certification programs, the community, and local businesses were consistently recommended at every milestone. Such collaborations can serve as a vehicle to encourage middle and high school students to stay in school, to improve the image of teaching as a profession, to ensure smooth transitions from one institution to another (middle school to high school, high school to community college, community college to four-year institution), to assist in recruiting both traditional and nontraditional students into the teaching profession, and to provide financial support and other incentives to public school students and teachers.

Additionally, a network of social/emotional, financial, and academic supports was recommended at each stage. These supports can guide students in their decisions to stay in school, provide them with the financial means to pursue post-secondary

Chart 11
Texas Educational Opportunity Plan for Public Higher Education

Milestone	Collaboration	Support	Awareness	Other
Staying in school Passing required tests (TAAS) Graduation	• middle schools • high schools • local business community • colleges to ensure smooth transitions, to improve image of teaching and schooling, to provide financial support	Improve curriculum, offer test-taking study sessions, eliminate tracking Provide counseling services to guide student decisions to stay in school and to pursue post-secondary education	Awareness campaign to improve the image of teaching as a profession Provide "how to" information regarding college application, financial aid options, etc.	
Entering college/post-secondary education Passing required tests (TASP) Retention in college	• public schools • community colleges • four-year colleges • universities • local business community to ensure smooth transitions to provide financial support	Ongoing financial assistance and more creative means of financial assistance, such as forgivable loans Admissions windows for students with weak academic records Flexible course schedules Test-taking study sessions Counseling and mentoring Increase remediation and developmental programs at the college level Open office of minority student affairs	Publicize support programs for minority students Disseminate information about successful programs of minority student recruitment and retention	
Entering teacher certification programs Retention in programs	• public schools • schools of education • local business community	Ongoing financial support of student Counseling Mentoring	Disseminate information about successful programs	
Passing required tests (ExCET) Entering teaching profession	• state education agency • schools of education • public schools • local business community	Financial support to public schools to improve teaching conditions Test-taking study sessions Mentoring by senior teachers Financial support to improve conditions in public schools Reduction of teachers' non-instructional duties	Disseminate information on successful programs for recruitment and retention of minority teachers Awareness campaign to improve image of teaching as a profession	Alternative certification programs Recruitment of teacher aids, retired military, and other previously untapped groups

Teacher Outcomes in Culturally Diverse Classrooms

There is no such thing as a culturally neutral educational process. Ethnographic research in education has found that teacher-student interactions are rooted in a cultural context. Educators must recognize that the culture transmitted in the curriculum and instruction may not be shared by an increasing number of students in their classrooms. Educators must cope with the challenge of developing materials and techniques that are appropriate in culturally diverse situations.

Early efforts to deal with cultural diversity, such as the Head Start Program, were based on a cultural deficit model. In this view, students served by these programs were seen as lacking educational and cultural resources to succeed in school. Later programs focused on equal opportunity. Current research emphasizes equity over equal opportunity. Providing all students equal access to the same materials may not be enough to assure equitable outcomes of education. Educators must maintain a strict clarity of focus on equity of student outcomes in order to close the achievement gap.

The recognition of cultural diversity in the classroom has several implications for teacher preparation programs. First, teachers need to be able to communicate ideas effectively and in different ways to diverse populations. As an example, different cultures use language differently and communication in the classroom must accommodate these differences.

Second, teachers need to possess an understanding of their subject matter that is both broad and deep in order to be able to communicate it effectively to diverse student populations. Third, teachers need to fully understand the structure and content of the curriculum in order to assure that the instructional strategies they employ produce equitable educational outcomes. Fourth, teachers must be able to identify materials that span diverse cultures. Fifth, teachers need to adapt instruction to the students being taught in nonremedial and noncompensatory ways. Sixth, teachers must be able to develop personal relationships with the children they teach.

The disproportionately high failure rates among minority students are indicators of both a failure of communications strategies used by teachers and a failure of the learning setting to accommodate diversity. One solution to this situation is to provide all students pursuing teaching careers with guided preservice experiences in observing good instruction and guided experiences in observing students' responses. Too often, teachers do not have the opportunity to study the responses of students in an instructional setting.

The issues of acculturation and assimilation are extremely complex. Practice indicates that good teachers, whatever their ethnic or cultural background, can successfully teach students. This might indicate that acculturation is not an effective teaching strategy and that teachers must understand their *own* cultural background and how it impacts their work in the classroom. Teacher preparation programs could assist in this understanding.

As an example of this, all teacher students at California State University at Hayward must complete not one but three student teaching assignments. Two of these assignments must be in classrooms in which the dominant cultures are not their own. In addition, all education students at Hayward must complete course work in cultural awareness and understanding.

It is not enough to be aware of different cultures. Successful teachers, regardless of culture, ethnicity, or subject matter, are able to connect with the personal lives of their students. Moreover, this successful connection enhances the competence and performance of the students in these teachers' classrooms.

Etta Hollins, professor of education at California State University at Hayward, presentation to the Committee on Long-Range Planning at the February 1993 meeting of the State Board of Education.

education, offer them flexibility in scheduling courses to accommodate their daytime responsibilities, and allow them the academic support to pass required tests for entry to and exit from programs. Once in the teaching profession, having senior teachers serve as mentors and providing opportunities for new teachers to observe senior teachers in their classrooms were recommended as effective support strategies. Such supports provide an environment that is both conducive to learning and encourages student and teacher success.

The third broad area of recommendations, awareness and information needs, deals both with the issue of improving the image and elevating the status of teaching and the teaching profession, and with dissemination of information about successful programs for recruiting and retaining minority students in teacher certification programs and the teaching profession. This awareness campaign is a way to reverse or correct misconceptions and negative impressions of the teaching profession, as well as to provide incentives to those who may be unsure of their ability to succeed in school or teaching as a career.

Other recommendations were concerned largely with the recruitment of minorities into the teaching profession through alternative certification programs and tapping pools of individuals not previously considered potential teacher candidates. These pools include groups that tend to contain large numbers of minorities such as teacher aides, paraprofessionals, and retired military personnel.

Texas Minority Teacher Recruitment and Retention

The Region I Education Service Center Teacher Recruitment and Certification Project was established by the Texas Education Agency in the fall of 1988 to provide effective leadership to reduce teacher shortages in the Edinburg area. Funding for the original project was made available through federal Elementary and Secondary Education Act Chapter 2 funds. After the first year, these projects continued with funds committed from the state.

Federal funds were also made available in 1990 to support two projects focused on attracting and retaining minorities in the teaching profession. After the first year, funds were provided from the Tomás Rivera Center with matching funds from the state. The projects were located at Southwest Texas State University in San Marcos and the University of Texas at El Paso.

The Region I teacher recruitment project was expanded and replicated in

Strategies for Incorporating Multicultural Education Into Teacher Preparation Programs

The following strategies for incorporating multicultural education into teacher education programs are taken from national research such as James Frazer's report on preparation of teachers. Current research recognizes the need to both familiarize teachers with multicultural concerns and provide them with the knowledge, skills, and attitudes to meet the needs of a diverse student population.

Strategies for Teacher Preparation Programs:

Hold faculty members accountable for making multicultural concerns an integral part of every course they teach.

Offer courses to help prospective teachers understand and appreciate diversity.

Offer meaningful field experiences and student teaching sites that enable prospective teachers to work with children from diverse populations.

Strategies for State Departments of Education:

Make awareness of multicultural concerns and ability to address diverse student needs requirements for teacher certification.

Texas Action

In February 1994 the Texas State Board of Education adopted teacher and administrator proficiencies for educator preparation programs. These proficiencies reflect what teachers and administrators should know and exhibit to work successfully with a diverse student population. The proficiencies are the basis of a new accountability system for educator preparation programs. Proficiencies for teachers and administrators related to diversity are:

The teacher responds appropriately to diverse groups of learners.

The administrator promotes equity in excellence for all by acknowledging, respecting, and responding to diversity among students and staff while building on shared values and other similarities that bond all people.

1992 at five additional ESCs as a result of its success. These projects are located in the largest urban areas of the state: Houston, San Antonio, Dallas/Richardson, Fort Worth, and El Paso. The minority recruitment projects were also expanded to other universities. Both teacher shortage and minority recruitment initiatives continue at the state level under the Texas Teacher Recruitment Retention and Assistance Program (TTRRA). The TTRRA program facilitates the search, employment, and retention of qualified, certified personnel to ensure excellence and provide equity in learning for all students.

TTRRA Academies set the stage for teacher retention by preparing teacher candidates for the classroom and providing materials, assistance, and direction toward teaching careers to college students from diverse backgrounds. The original minority recruitment project located at Southwest Texas State University now offers an extensive mentoring program for both students and paraprofessionals. The University of Texas at El Paso academy provides a support base for new teachers by working cooperatively with parents, counselors, school administrators, and community leaders.

The academy located at the University of Texas at Brownsville is a university retention model for teacher preparation and faculty development. A cross cultural academy has been developed at the University of Houston and Texas Southern University to prepare prospective teachers for teaching in culturally diverse communities. The University of Houston, a predominantly white college, and Texas Southern University, a predominantly African American college, are both located in Houston.

The additional ESC sites are designed to ease critical shortages in certain teaching areas and focus on some or all of the following types of activities:

- University-school district collaborations
- School-business partnerships
- Providing supports to prospective teachers:
  - Academic support
  - Financial support
  - Social supports
- Staff Development
- Flexible course schedules in schools of education (evening courses)
- Alternative certification programs
- Teacher aide recruitment
- Talented student searches
- Assistance to teachers on permit:
  - ExCET sessions
  - Study materials
  - Course coordination

Currently, the state is working with the Commission on Standards for the Teaching Profession (CSTP) to develop an outcome based accountability system for approval of each entity providing professional educator preparation through either a traditional university program or alternative route. A variety of indicators to measure the performance of educator preparation entities will be collected for the purpose of creating an Educator Excellence Indicator System (EEIS). Possible indicators of preparation program success include recruitment, retention, completion, ExCET performance, placement, professional retention, appraisal, and a local quality measure of the teacher's performance. Each of these indicators will be compared on the basis of ethnicity and gender within each program as well as between programs within each institution. In addition, each will be linked to either teaching proficiencies or performance in the classroom.

Recruitment Legislation

Recent Texas legislation relating to the recruitment of teachers went into effect in September 1993, and stresses the following:

- Collaboration among the state, education service centers, and secondary schools in identifying talented secondary students and attracting them to the teaching profession.
- Collaboration among the state, secondary schools, and the local business community to develop recruiting programs designed to attract and retain capable teachers; and to encourage businesses to provide summer employment opportunities for teachers.
- Collaboration among the state and major education associations in developing a long-range program promoting teaching as a career and identifying local activities and resources to promote the teaching profession.
- Development of a teaching fellows program under the direction of the commissioner of education that will provide four-year scholarships of $2,500 per year to qualified students who agree to teach for at least four of the seven years after they graduate.

CONCLUSION

The Texas teaching force is far from matching the diversity of the student body. While the student body becomes increasingly more ethnically diverse each year, the percentage of minorities in the teaching force has changed little over the past decade. Furthermore, teachers are not evenly distributed among districts by ethnicity. Six regions of the state have teaching staffs that are over 90 percent white. Seven more regions have teaching staffs that represent only two major ethnic groups, with few members of the third major ethnic group in the state.

The low number of African American teachers in the state is of particular concern because African Americans are joining the teaching force in smaller and smaller numbers. In 1981-82, the Texas teaching force was almost 11 percent African American. By 1992-93, African American teachers represented only eight percent of the teaching force and only seven percent of first year teachers.

The trends in Hispanics entering the teaching field are more positive. In the decade from 1981-82 to 1992-92, the Hispanic teaching force increased by 60 percent, compared to 45 percent growth in the Hispanic student body. In 1992-93, Hispanic teachers represented 14 percent of all teachers and 18 percent of first year teachers. This achievement is particularly positive given the large number of Hispanic students who drop out of the pipeline before graduating from high school.

Student course enrollment trends are also positive. In the five year period from 1988-89 to 1992-93, enrollment in specific subjects grew faster than the total number of students enrolled. Secondary science was the subject area with the greatest increase in enrollment. Although mathematics enrollments did not increase during this period, students are enrolling in greater numbers in higher level mathematics courses than they were five years ago.

These course enrollment patterns should carry over to higher performance on other measures of student achievement. In 1992-93, the percent passing all tests taken on the first administration of the exit-level TAAS was higher than the prior year for all ethnic groups. Two-thirds of 1991-92 Hispanic and African American graduates reported that they were planning to attend college within the next year, compared to about half of 1988-89 graduates. More minority graduates are also taking the SAT and ACT tests than five years ago. Although the performance gap between white and minority students on the SAT and ACT tests has not decreased over the past five years, minority student average scores are increasing at the same rate as white student scores.

Nationally, new minority teachers are choosing teaching fields in which there are shortages. In Texas, this is true for the fields of special education and bilingual/ESL only. Hispanic and African American teachers are underrepresented in secondary science and mathematics, especially in the college preparatory or advanced courses. With course enrollments increasing, and more students enrolling in higher level courses, the shortage of minority teachers in secondary mathematics and science is just as great a concern as the overall shortages.

Gender diversity is also an area in which there is a mismatch between teachers and students. Male teachers represent only 22 percent of the total Texas teacher population and half of all male teachers teach in high schools. Male and female students also experience different levels of achievement in school. Research indicates that females and males meet with different experiences in school. Male students receive more attention from teachers over female students, are solicited for responses from teachers more often than females, and experience higher levels of achievement in both the TAAS mathematics portion of the test and overall scores of the SAT.

Selected Bibliography

Alston, Denise A. (1988) *Recruiting Minority Classroom Teachers: A National Challenge.* Results in Education. Washington, DC: National Governor's Association.

How Schools Shortchange Girls: A Study of Major Findings on Girls and Education. (1992) Washington, DC: American Association of University Women Educational Foundation.

Banks, James A. (1993) "The Canon Debate, Knowledge Construction, and Multicultural Education." *Educational Researcher* (American Education Research Association, Washington, DC) 22:2 (June-July 1993): 4-14.

Boe, Erling E. and Gilford, Dorothy M., eds. (1992) *Teacher Supply, Demand, and Quality: Policy Issues, Models, and Data Bases.* Washington, DC: National Academy Press.

Drake, Daniel D. (1993) "Student Diversity: Implications for Classroom Teachers." *The Clearing House* (Washington, DC) 66:5 (May/June 1993): 264-266.

Feistritzer, C. Emily (1992) *Who Wants to Teach?* Washington, DC: National Center for Education Information.

Fraser, James W. (1992) "Preparing Teachers for Democratic Schools: The Holmes and Carnegie Reports Five Years Later — A Critical Reflection." *Teachers College Record* (Teachers College, Columbia University, New York) 94:1 (Fall 1992): 7-55.

Grant, Carl A. (1992) *Research and Multicultural Education: From the Margins to the Mainstream.* Washington, DC: Falmer Press.

Institute for Education in Transformation. (1992) *Voices from the Inside: A Report on Schooling from Inside the Classroom.* Part One: Naming the Problem. Claremont, CA: The Claremont Graduate School.

King, Sabrina Hope. (1993) "The Limited Presence of African American Teachers." *Review of Educational Research* 63:2 (Summer 1993): 115-149.

McLaughlin, Milbrey Wallin. (1992) *What Matters Most in Teachers' Workplace Context?* Stanford, CA: Center for Research on the Context of Secondary Teaching.

Meier, Kenneth J. and Stewart, Joseph Jr. (1991) *The Politics of Hispanic Education: Un Paso Pa' lante y Dos Pa' tras.* Albany, NY: State University of New York Press.

State Board of Education. (1991) *Quality, Equity, Accountability: Long-Range Plan for Public Education 1991-1995.* Austin, TX: Texas Education Agency.

State Board of Education. (February 1992) "Changing Demographics of the Texas Population." *Minutes, February 6-7, 1992.* Austin, TX: Texas Education Agency.

State Board of Education.(July 1992) "Endorsement of Recommended Proficiencies for Texas High School Graduates." Agenda, July 9-10, 1992. Austin, TX: Texas Education Agency.

State Board of Education. (September 1992) "Proposed Amendments to 19 TAC Chapter 75, Curriculum, Subchapter E." *Agenda, September 10-11, 1992.* Austin, TX: Texas Education Agency.

State Board of Education. (September 1992) "Proposed Amendments to 19 TAC Chapter 75, Curriculum, Subchapter E." *Minutes, September 10-11, 1992.* Austin, TX: Texas Education Agency.

State Board of Education. (January 1993) "Proposed Amendment to 19 TAC Chapter 75, Curriculum, Subchapter D." *Minutes, January 7-8, 1993.* Austin, TX: Texas Education Agency.

State Board of Education. (February 1993) "Teacher Outcomes in Culturally Diverse Classrooms." *Minutes, February 11-12, 1993*. Austin, TX: Texas Education Agency.

State Board of Education. (July 1993) "Recommended High School Program." Agenda, July 8-9, 1993. Austin, TX: Texas Education Agency.

State Board of Education. (November 1993) "Adoption of Recommended High School Program." *Minutes, November 11-12, 1993*. Austin, TX: Texas Education Agency.

State Board of Education. (February 1994) "Raising Expectations to Meet Real-World Needs." *Agenda, February 10-11, 1994*. Austin, TX: Texas Education Agency.

Texas Education Agency. (1993) *Snapshot: 1992-93 School District Profiles*. Austin, TX: TEA.

Texas Education Agency. (1994) *State Board of Education Recommended High School Program Question and Answer Paper*. Austin, TX.

Project Staff

Criss Cloudt
Associate Commissioner
Office of Policy Planning and Evaluation

Nancy Stevens
Editor

Teacher Supply, Demand, and Quality Policy Research Project

Policy Planning and Evaluation
Ester Calderón Regalado, Project Coordinator
Susan Barnes
Linda Hargrove
Richard Kallus
Vicky A. Killgore
Lauren H. Moede
Marilyn H. Rumbaut
Maureen Moore Scheevel
Sedra G. Spano
Maria Whitsett

Professional Educator Assessment
Omar S. López
Pamela Tackett
Nolan Wood

Resource Planning and Reports
Bob Barker

Educational Personnel Records
George C. Dugger

Professional Educator Preparation
William M. Wale
James Salmon
Evangelina Galván

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964 AS AMENDED; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED; AMERICAN DISABILITIES ACT OF 1990; AND THE CIVIL RIGHTS ACT OF 1991.

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